

REMARKS

Status of Claims:

Claims 57-69 were examined in the above-noted Office Action. Claims 59-67 are being canceled and claims 71-80 are being added by this Amendment and Response. Therefore, claims 57, 58, and 68-80 will be pending upon entry of this Response.

Office Action References:

Applicant expressly reserves the right to respond to any rejection in the outstanding Office Action by filing an appropriate affidavit under 37 C.F.R. §1.131 in any subsequent Response, where appropriate. Therefore, any addressing of the deficiencies of any reference herein is not an admission as to the prior art status of any such reference. Moreover, any failure to address the Examiner's interpretation with regard to any reference is not an admission by Applicant that the Examiner's position is in fact accurate. Finally, Applicant's response should not be construed as an admission as to the appropriateness of any combinations being asserted by the Examiner in support of any obviousness rejection.

Interview Summary:

The undersigned would like to thank the Examiner for the time expended in a telephone interview conducted on Thursday, September 17, 2009, where claim 57 as presented herein was addressed, as well as how the same was patentable over the Stellant Operation Manual and U.S. Patent No. 4,044,757 (referred to by the Examiner in the rejection of claim 57 in the outstanding Office Action).

Independent Claim 57:

Independent Claim 57 stands rejected under 35 U.S.C. §103(a) based upon Medrad, Inc., "Stellant CT Injection System, Operation Manual Catalog #SOM 700 EN, 2003 (hereafter "Stellant OMC"). Applicant respectfully requests reconsideration since the Stellant OMC does not suggest the combination of features presented in claim 57 to one of ordinary skill in the art. Part of the combination of features of claim 57 requires executing a programmed purge protocol and thereafter a programmed injection procedure, where Y-tubing is coupled to each of first and second syringes for the execution of each of the programmed purge protocol and the programmed injection procedure, where the programmed injection procedure is executed after the execution of the programmed purge protocol, and where the programmed purge protocol includes: 1) advancing a first plunger drive ram of the injector to move a plunger of the first syringe to a first predetermined stop point where the plunger of the first syringe stops, which purges air from the first syringe and a first section of Y-tubing, which furthermore fills the first section of the Y-tubing with contrast media, and where this advancement purges air up to where the first section of Y-tubing

intersects with second and third sections of the Y-tubing; and 2) advancing a second plunger drive ram of the injector to move a plunger of the second syringe to a second predetermined stop point where the plunger of the second syringe stops, which purges air from the second syringe, the second section of the Y-tubing, the intersection of the first, second, and third section of the Y-tubing, and the third section of the Y-tubing, which furthermore fills the second and third sections of the Y-tubing with saline, and where the advancement of the second plunger drive ram occurs for this part of the programmed purged protocol occurs after the advancement of the first plunger drive ram.

The Examiner refers primarily to two different sections of the Stellant OMC in the rejection of claim 57. The section on page 3-30 of the Stellant OMC does mention "Ensure all air is purged," but does not provide any details as to how this is done. No specifics are provided on what plunger drive ram movement or combination of plunger drive ram movements are utilized to provide any purging operation in this section of the Stellant OMC.

The Examiner also references pages 3-34 through 3-36 of the Stellant OMC in relation to claim 57. This section lists steps 1-14 in relation to an Auto Load function to load a syringe. Step 9 from this listing of steps (page 3-36) does indicate that a "Prime" button may be pressed, and that the injector may automatically move forward to fill the patient tubing with fluid. This of course is not a disclosure of the "advancing a first plunger drive ram" step and the "advancing a second plunger drive ram" step required by the programmed purge protocol of claim 57 – two different movements of two different plunger drive rams in a certain time sequence. In fact, the very next sentence of step 9 indicates that "on a dual syringe system, the unit can be configured to either prime the tubing with contrast (side A) or saline (side B)" (emphasis added). This sentence clearly conveys that the priming operation of step 9 entails moving the plunger of a single syringe – either the syringe on side A of the injector or the syringe on side B of the injector. Claim 57 specifies that each of the first and second plunger drives rams is moved in the programmed purge protocol. Moreover, the timing of these movements is addressed by claim 57, along with how both saline and contrast media are introduced into the Y-tubing, as well as the extent of the air purge that is provided by each of these movements. Nothing of this type is addressed by the Stellant OMC.

Based upon the foregoing, claim 57 is allowable over the Stellant OMC. Claims 58, 69, and 70, which depend from claim 57, are thereby also allowable over the Stellant OMC for at least the above-noted reasons. There is therefore no need to separately address the patentability of each of these claims and/or the Examiner's interpretation in relation to any of these claims or any of the references of record in relation thereto.

Claim 57 further stands rejected based upon a combination of Stellant OMC and U.S. Patent No. 4,044,757 (McWhorter). McWhorter does not remedy all of the above-noted deficiencies of the Stellant OMC in relation to claim 57. Although McWhorter does address a purging operation in column 6, lines 36-55, the plunger of the second syringe is pressed to eject a small quantity of contrast medium through the catheter, and thereafter the plunger of the first syringe is pressed to eject irrigation liquid through the catheter. Claim 57 requires that the first plunger drive ram be advanced to purge air up to the intersection of the first, second, and third sections of the Y-tubing. Therefore,

claim 57 and all claims depending therefrom are further allowable over a collective consideration of the Stellant OMC and McWhorter.

Independent Claim 71:

Independent claim 71 is being added by this Amendment and Response, and includes much of the content of claim 57. In this regard, claim 71 specifies both a programmed purge protocol and a programmed injection procedure for a dual head injector having first and second plunger drive rams that interact with first and second syringes that are mounted to the injector, along with the use of Y-tubing, all as set forth in claim 57. Moreover, the timing of the advancements of the first and second plunger drive rams in claim 71 is the same as set forth in claim 57, as are the fluids associated with the advancement of the first and second plunger drive rams (saline and contrast media, respectively). What is different in claim 71 is the characterization of the result of the advancement of the first and second plunger drive rams. In this regard, claim 71 requires that the first plunger drive ram be advanced to move a plunger of the first syringe to a first predetermined stop point where the plunger of the first syringe stops, and which purges air up to a first location of the Y-tubing and furthermore directs contrast media into the Y-tubing. Claim 71 further requires that the second first plunger drive ram be advanced to move a plunger of the second syringe to a second predetermined stop point where the plunger of the second syringe stops, and which purges air up to a second location of the Y-tubing and furthermore directs saline into the Y-tubing. Claim 71 further notes that the second location (associated with the advancement of the second plunger drive ram, and which occurs after the advancement of the first plunger drive ram) is downstream of the first location (associated with the advancement of the first plunger drive ram). Claim 57 instead noted that the advancement of the first plunger drive ram purged air up to the intersection of the first, second, and third sections of the Y-tubing (e.g., representative of the "first location" set forth in claim 71), and that the advancement of the second plunger drive ram purged air from the second section of Y-tubing, the intersection of the first, second, and third sections of the Y-tubing, and the third section of the Y-tubing (e.g., representative of the "second location" set forth in claim 71). Neither the Stellant OMC nor McWhorter disclose movements of two different plunger drive rams to purge air to different extents in Y-tubing connected to a pair of syringes on a dual head injector. Again, the sections of the Stellant OMC referred to by the Examiner do not disclose moving each of two different drive rams for a purge sequence (much less in the manner called out by claim 71), and the movements of the plungers of the syringes in McWhorter both purge air to the same location (the end of the catheter).

Conclusion:

Based upon the foregoing, Applicant believes that all pending claims are in condition for allowance and such a disposition is respectfully requested. In the event that a telephone conversation would further prosecution and/or expedite allowance, the Examiner is invited to contact the undersigned.

Respectfully submitted,

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